IMMUNOLOGY

CONTENTS

Vol 110, No 1, September 2003

Review article

1 *Stephen M. Todryk, Michael J. Gough & A. Graham Pockley:* Facets of heat shock protein 70 show immunotherapeutic potential

Original articles

10 *J. Wan, D. Martinvalet, X. Ji, C. Lois, S. M. Kaech, U. H. Von Andrian, J. Lieberman, R. Ahmed & N. Manjunath:* The Bcl-2 family pro-apoptotic molecule, BNIP3 regulates activation-induced cell death of effector cytotoxic T lymphocytes

18 *Molly E. Skelsey, Elizabeth Mayhew & Jerry Y. Niederkorn:* $CD25^+$, interleukin-10-producing $CD4^+$ T cells are required for suppressor cell production and immune privilege in the anterior chamber of the eye

30 *Runhua Hou, Olga Goloubeva, Donna S. Neuberg, Jack L. Strominger & S. Brian Wilson:* Interleukin-12 and interleukin-2-induced invariant natural killer T-cell cytokine secretion and perforin expression independent of T-cell receptor activation

38 *Marc Dauer, Katrin Pohl, Bianca Obermaier, Tobias Meskendahl, Julian Röbe, Max Schnurr, Stefan Endres & Andreas Eigler:* Interferon-α disables dendritic cell precursors: dendritic cells derived from interferon-α-treated monocytes are defective in maturation and T-cell stimulation

48 *Sue A. Stephens, Joe Brownlie, Bryan Charleston & Chris J. Howard:* Differences in cytokine synthesis by the sub-populations of dendritic cells from afferent lymph

58 *Marieke H. Mossink, Jan de Groot, Arend van Zon, Erna Fränzel-Luiten, Martijn Schoester, George L. Scheffer, Pieter Sonneveld, Rik J. Scheper & Erik A. C. Wiemer:* Unimpaired dendritic cell functions in *MVP/LRP* knockout mice

66 *Riyoko Tamai, Yasuyuki Asai, Masahito Hashimoto, Koichi Fukase, Shoichi Kusumoto, Hideharu Ishida, Makoto Kiso & Tomohiko Ogawa:* Cell activation by monosaccharide lipid A analogues utilizing Toll-like receptor 4

73 *Kwang-Seok Oh, Mee-Hyang Kweon, Ki-Hyeong Rhee, Keyong Ho Lee & Ha-Chin Sung:* Inhibition of complement activation by recombinant Sh-CRIT-ed1 analogues

80 *Gregory T. Spear, M. Reza Zariffard, Ji Xin & Mohammed Saifuddin:* Inhibition of DC-SIGN-mediated *trans* infection of T cells by mannose-binding lectin

86 *Michael Vajdy, Manmohan Singh, Mildred Ugozzoli, Maylene Briones, Elawati Soenawan, Lina Cuadra, Jina Kazzaz, Paolo Ruggiero, Samuele Peppoloni, Francesco Norelli, Giuseppe Del Giudice & Derek O'Hagan:* Enhanced mucosal and systemic immune responses to *Helicobacter pylori* antigens through mucosal priming followed by systemic boosting immunizations

95 *Neil C. Robson, Helen Beacock-Sharp, Anne M. Donachie & Allan McI. Mowat:* The role of antigen-presenting cells and interleukin-12 in the priming of antigen-specific $CD4^+$ T cells by immune stimulating complexes

105 *David G. Casey, Joanne Lysaght, Tharappel James, Andrew Bateman, Alan A. Melcher & Stephen M. Todryk:* Heat shock protein derived from a non-autologous tumour can be used as an anti-tumour vaccine

112 *Taiki Morohashi, Kazuya Iwabuchi, Keiko Watano, Nyambayar Dashtsoodol, Tetsuya Mishima, Yukihito Nakai, Shigeki Shimada, Ryutaro Nishida, Satoshi Fujii & Kazunori Onoé:* Allograft inflammatory factor-1 regulates trinitrobenzene sulphonic acid-induced colitis

120 *Salvatore Cuzzocrea, Antonietta Rossi, Ivana Serraino, Rosanna Di Paola, Laura Dugo, Tiziana Genovese, Domenico Britti, Giuseppe Sciarra, Angelina De Sarro, Achille P. Caputi & Lidia Sautebin:* 5-lipoxygenase knockout mice exhibit a resistance to acute pancreatitis induced by cerulein

131 *Cécile Contin, Vincent Pitard, Yahsou Delmas, Nadège Pelletier, Thierry Defrance, Jean-François Moreau, Pierre Merville & Julie Déchanet-Merville:* Potential role of soluble CD40 in the humoral immune response impairment of uraemic patients

141 *Lingyun Xu, Brendan Hilliard, Ruaidhri J. Carmody, Galit Tsabary, Hyunshun Shin, David W. Christianson & Youhai H. Chen:* Arginase and autoimmune inflammation in the central nervous system

149 *U. Islander, M. C. Erlandsson, B. Hasséus, C. A. Jonsson, C. Ohlsson, J-Å. Gustafsson, U. Dahlgren & H. Carlsten:* Influence of oestrogen receptor α and β on the immune system in aged female mice

158 Future meetings

162 Forthcoming papers

Vol 110, No 2, October 2003

Review article

163 *Eric W. Hewitt:* The MHC class I antigen presentation pathway: strategies for viral immune evasion

Original articles

170 *Olle Bjorkdahl, Karen A. Barber, Sara J. Brett, Maria G. Daly, Christopher Plumpton, Nabil A. Elshourbagy, John P. Tite & Lindy L. Thomsen:* Characterization of CC-chemokine receptor 7 expression on murine T cells in lymphoid tissues

180 *Ada L. Garcia, Ralph Rühl, Udo Herz, Corinna Koebnick, Florian J. Schweigert & Margitta Worm:* Retinoid- and carotenoid-enriched diets influence the ontogenesis of the immune system in mice

188 *Dianne L. Commeren, Peter L. van Soest, Khalil Karimi, Bob Löwenberg, Jan J. Cornelissen & Eric Braakman:* Paradoxical effects of interleukin-10 on the maturation of murine myeloid dendritic cells

197 *Norifumi Iijima, Yoshiki Yanagawa, Kazuya Iwabuchi & Kazunori Onoé:* Selective regulation of CD40 expression in murine dendritic cells by thiol antioxidants

206 *Mario I. Vega, Leopoldo Santos-Argumedo, Sara Huerta-Yepez, Rosendo Luria-Perez, Vianney Ortiz-Navarrete, Armado Isibasi & Cesar R. González-Bonilla:* A *Salmonella typhi* OmpC fusion protein expressing the CD154 Trp140–Ser149 amino acid strand binds CD40 and activates a lymphoma B-cell line

217 *Tetsuya Yamamoto, Eisaku Ueta & Tokio Osaki:* Apoptosis induction by interleukin-2-activated cytotoxic lymphocytes in a squamous cell carcinoma cell line and Daudi cells – involvement of reactive oxygen species-dependent cytochrome c and reactive oxygen species-independent apoptosis-inducing factors

225 *Mark A. Wortinger, Joseph W. Foley, Patrick Larocque, Derrick R. Witcher, Michael Lahn, Joseph A. Jakubowski, Andrew Glasebrook & Ho Yeong Song:* Fas ligand-induced murine pulmonary inflammation is reduced by a stable decoy receptor 3 analogue

234 *Margot A. Skinner, Natalie Parlane, Allison McCarthy & Bryce M. Buddle:* Cytotoxic T-cell responses to *Mycobacterium bovis* during experimental infection of cattle with bovine tuberculosis

242 *Deborah M. Prinz, S. Louise Smithson, Thomas Kieber-Emmons & M. A. Julie Westerink:* Induction of a protective capsular polysaccharide antibody response to a multiepitope DNA vaccine encoding a peptide mimic of meningococcal serogroup C capsular polysaccharide

250 *Angelo Mena, Anil K. Nichani, Yurij Popowych, Dale L. Godson, Donna Dent, Hugh G. G. Townsend, George K. Mutwiri, Rolf Hecker, Lorne A. Babiuk & Philip Griebel:* Innate immune responses induced by CpG oligodeoxyribonucleotide stimulation of ovine blood mononuclear cells

258 *Saifur R. Ahmad, Elaine A. Lidington, Rieko Ohta, Noriko Okada, Michael G. Robson, Kevin A. Davies, Michael Leitges, Claire L. Harris, Dorian O. Haskard & Justin C. Mason:* Decay-accelerating factor induction by tumour necrosis factor-α, through a phosphatidylinositol-3 kinase and protein kinase C-dependent pathway, protects murine vascular endothelial cells against complement deposition

269 *Claudio Rhyner, Michael Weichel, Philipp Hübner, Gernot Achatz, Kurt Blaser & Reto Crameri:* Phage display of human antibodies from a patient suffering from coeliac disease and selection of isotype-specific scFv against gliadin

275 *Yongzhu Jin, Qingyin Zhang, J.I.E. Hao, Xiang Gao, Yinglu Guo & Shusheng Xie:* Simultaneous administration of a low-dose mixture of donor bone marrow cells and splenocytes plus adenovirus containing the CTLA4Ig gene result in stable mixed chimerism and long-term survival of cardiac allograft in rats

287 Corrigendum

288 Future meetings

290 Forthcoming papers

Vol 110, No 3, November 2003

Comments

291 *Fiona J. Culley & Wieslawa Olszewska:* Physical trauma of vaccination acts as a wake-up call to dangers in the skin

293 *John V. Forrester & Richard Cornall:* Tolerance and autoimmunity in the eye: a role for CD8 T cells in organ-specific autoimmunity in the retina

Original articles

296 *Jennifer C. Sims-Mourtada, Liliana Guzman-Rojas, Roberto Rangel, Dat X. Nghiem, Stephen E. Ullrich, Christiane Guret, Kelly Cain & Hector Martinez-Valdez: In vivo* expression of interleukin-8, and regulated on activation, normal, T-cell expressed, and secreted, by human germinal centre B lymphocytes

304 *Alessandra Battaglia, Gabriella Ferrandina, Alessia Buzzonetti, Paolo Malinconico, Francesco Legge, Vanda Salutari, Giovanni Scambia & Andrea Fattorossi:* Lymphocyte populations in human lymph nodes.

Alterations in $CD4^+$ $CD25^+$ T regulatory cell phenotype and T-cell receptor Vβ repertoire

313 *Markus Sköld, Martin Stenström, Stephane Sidobre, Petter Höglund, Mitchell Kronenberg & Susanna Cardell:* MHC-dependent and -independent modulation of endogenous Ly49 receptors on $NK1.1^+$ T lymphocytes directed by T-cell receptor type

322 *Norifumi Iijima, Yoshiki Yanagawa & Kazunori Onoé:* Role of early- or late-phase activation of p38 mitogen-activated protein kinase induced by tumour necrosis factor-α or 2,4-dinitrochlorobenzene during maturation of murine dendritic cells

329 *Rogier J. L. Stuyt, Mihai G. Netea, Teunis B. H. Geijtenbeek, Bart Jan Kullberg, Charles A. Dinarello & Jos W. M. van der Meer:* Selective regulation of intercellular adhesion molecule-1 expression by interleukin-18 and interleukin-12 on human monocytes

335 *Bettina Drescher, Torsten Witte & Reinhold E. Schmidt:* Glycosylation of FcγRIII in N163 as mechanism of regulating receptor affinity

341 *Ling Liu, Xiaohui Zhou, Jianying Shi, Xin Xie & Zhenghong Yuan:* Toll-like receptor-9 induced by physical trauma mediates release of cytokines following exposure to CpG motif in mouse skin

348 *Maaike M. B. W. Dooper, Boet van Riel, Yvo M. F. Graus & Laura M'Rabet:* Dihomo-γ-linolenic acid inhibits tumour necrosis factor-α production by human leucocytes independently of cyclooxygenase activity

358 *Michelle A. Peters, Glenn F. Browning, Elizabeth A. Washington, Brendan S. Crabb & Pete Kaiser:* Embryonic age influences the capacity for cytokine induction in chicken thymocytes

368 *Sukumar Pal, Ellena M. Peterson & Luis M. de la Maza:* Induction of protective immunity against a *Chlamydia trachomatis* genital infection in three genetically distinct strains of mice

376 *Birgit Winkler, Caroline Bolwig, Ulla Seppälä, Michael D. Spangfort, Christof Ebner & Ursula Wiedermann:* Allergen-specific immunosuppression by mucosal treatment with recombinant Ves v 5, a major allergen of *Vespula vulgaris* venom, in a murine model of wasp venom allergy

386 *Scott W. McPherson, Jing Yang, Chi-Chao Chan, Chunzhi Dou & Dale S. Gregerson:* Resting CD8 T cells recognize β-galactosidase expressed in the immune-privileged retina and mediate autoimmune disease when activated

397 Future meetings

400 Forthcoming papers

Vol 110, No 4, December 2003

Review articles

401 *Roland Geisberger, Reto Crameri & Gernot Achatz:* Models of signal transduction through the B-cell antigen receptor

411 *Leo D. Wang & Marcus R. Clark:* B-cell antigen-receptor signalling in lymphocyte development

Editorial commentary

421 *Britta Radeloff, Katja Laun, Maja Zirra & Armin Volz:* Killer immunoglobulin-like receptor expression on single cells: a cautionary note

Comment

427 *Barbara Zemann & Antal Rot:* What dogs may teach humans about the vertical transmission of allergy predisposition

Original articles

430 *T. Rothoeft, A. Gonschorek, H. Bartz, O. Anhenn & U. Schauer:* Antigen dose, type of antigen-presenting cell and time of differentiation contribute to the T helper 1/T helper 2 polarization of naive T cells

440 *Artur Summerfield, Laurence Guzylack-Piriou, Alexander Schaub, Carlos P. Carrasco, Valerie Tâche, Bernard Charley & Kenneth C. McCullough:* Porcine peripheral blood dendritic cells and natural interferon-producing cells

450 *Jana Fritsche, Alexandra Müller, Martin Hausmann, Gerhard Rogler, Reinhard Andreesen & Marina Kreutz:* Inverse regulation of the ADAM-family members, decysin and MADDAM/ADAM19 during monocyte differentiation

458 *Oliver Weinmann, Ralf Gutzmer, Jörg Zwirner, Miriam Wittmann, Katja Langer, Margarete Lisewski, Susanne Mommert, Alexander Kapp & Thomas Werfel:* Up-regulation of C5a receptor expression and function on human monocyte derived dendritic cells by prostaglandin E_2

466 *Bernadette M. Bellette, Gregory M. Woods, Teresa Wozniak, Kathleen V. Doherty & H. Konrad Muller:* DEC-205^{lo} $Langerin^{lo}$ neonatal Langerhans' cells preferentially utilize a wortmannin-sensitive, fluid-phase pathway to internalize exogenous antigen

474 *Silvia Sartoris, Maria G. Testi, Elisabetta Stefani, Roberto Chignola, Chiara Guerriero, Andrea Matucci, Tiziana Cestari, Aldo Scarpa, Anna P. Riviera, Giovanna Zanoni, Giuseppe Tridente & Giancarlo Andrighetto:* Induction of an antitumour adaptive immune response elicited by tumour cells expressing

de novo B7-1 mainly depends on the anatomical site of their delivery: the dose applied regulates the expansion of the response

482 *So-Yon Lim & Swapan K. Ghosh:* Autoreactive responses to an environmental factor: 1. phthalate induces antibodies exhibiting anti-DNA specificity

493 *Edward G. Barrett, Karin Rudolph, Larry E. Bowen & David E. Bice:* Parental allergic status influences the risk of developing allergic sensitization and an asthmatic-like phenotype in canine offspring

501 *Yimin, Masashi Kohanawa & Tomonori Minagawa:* Up-regulation of granulomatous inflammation in interleukin-6 knockout mice infected with *Rhodococcus aurantiacus*

507 *Else Marie Agger, Inger Brock, Limei Meng Okkels, Sandra M. Arend, Claus S. Aagaard, Karin N. Weldingh & Peter Andersen:* Human T-cell responses to the RD1-encoded protein TB27.4 (Rv3878) from *Mycobacterium tuberculosis*

513 *Mohamed Elrefaei, Nabila El-sheikh, Karim Kamal & Huyen Cao:* HCV-specific $CD27^{-}$ $CD28^{-}$ memory T cells are depleted in hepatitis C virus and *Schistosoma mansoni* co-infection

519 *Mark A. Exley, Nancy J. Bigley, Olivia Cheng, Angela Shaulov, Syed Muhammad Ali Tahir, Quincy L. Carter, Jorge Garcia, Carren Wang, Kurt Patten, Harold F. Stills, Frederick W. Alt, Scott B. Snapper & Steven P. Balk:* Innate immune response to encephalomyocarditis virus infection mediated by CD1d

527 Future meetings

530 Forthcoming papers

531 **Author and Subject Indexes for Volume 110**